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Granular cell tumor of colon

Kolonun granüler hücreli tümörü

To the Editor

Granular cell tumor (GCT) is a relatively rare soft tissue tumor that can appear in many different locations throughout the body. It commonly occurs in oral cavities and subcutaneous tissues. In the gastrointestinal tract, the most common site for GCT is the esophagus, followed by the duodenum, anus and stomach (1), but is uncommon in the colon and rectum (2). This usually benign tumor appears as a submucosal nodule, measuring less than 2 cm in diameter, and is often found incidentally during colorectal examinations (1, 2).

A 46-year-old man was referred to the Gastroenterology Department with a history of presence of blood in his stool. At the time of colonoscopy, a sessile polyp about 6 mm in diameter was found in the cecum as well as 3 and 5 mm diminutive polyps in the transverse colon and rectum, respectively. An endoscopic mucosal polypectomy was done for histological confirmation and treatment, and the patient was discharged without complication. Histological examination of the resected tissues revealed tubular adenomas in the transverse colon and rectum. In the cecum, a submucosal tumor was identified that was composed of solid masses of plump histiocyte-like cells with abundant granular eosinophilic cytoplasm with centrally located vesicular or dark pyknotic nuclei. In some areas, a slightly nodular architecture was identified. These nodules or sheets were surrounded by variable stroma (Figure 1A and 1B). The granules observed in the cell cytoplasm stained positive with periodic acid-Schiff (PAS) and were resistant to diastase (Figure 1C). Immunohistochemical analysis showed the tumor cells expressed S-100 protein as well (Figure 1D).

Granular cell tumor was first described by Abrikossoff in 1926 (3) and several cases have been reported since then, but gastrointestinal tract involvement, and especially that of the colon, is very rare (2). Endo et al. (4) reported 33 cases in Japan, but it is not clear how many cases these reviews cover in common. Eriksen et al. (5) reported the presence of tubulovillous adenoma in the vicinity of GCT (5). We also observed tubular adenomas but far from the lesion, in the transverse colon and rectum. The diagnosis during endoscopic examination according to macroscopic features is very difficult if not impossible and they are generally thought to be diminutive polyps.

The final diagnosis of GCT depends on pathological findings. The histological markers for GCT are plump histiocyte-like, bland-looking neoplastic cells with abundant granular eosinophilic cytoplasm containing acidophilic, PAS-positive, diastase-resistant granules; small, uniform nuclei, in

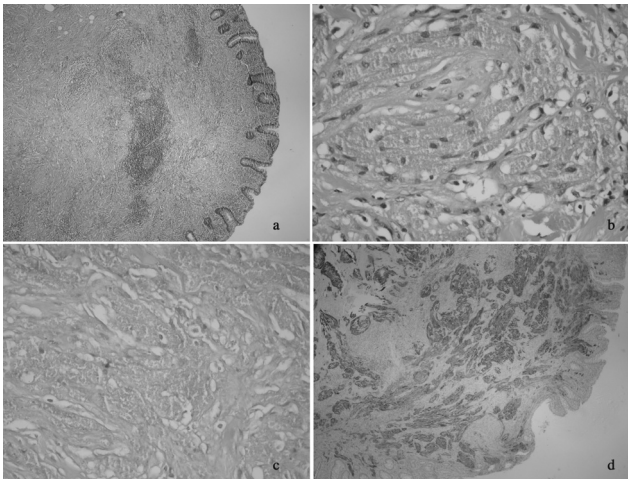

Figure 1. a) Low magnification view of submucosal tumor arranged in sheets (hematoxylin and eosin, x4). **b)** Tumor cells with abundant granular cytoplasm (hematoxylin and eosin, x20). **c)** Diastase-resistant, periodic acid-Schiff (PAS) staining cytoplasmic granules (d-PAS, x20). **d)** Diffuse and strong expression of S-100 protein in tumor (S-100, x4).

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which mitotic figures are absent; and neural markers, including S-100 protein or NSE, expressed uniformly (4, 6).

We present a cecum-localized GCT with typical histological findings. Although it is rare, endoscopists and pathologists should consider the possibility of GCT in the differential diagnosis of submucosal tumors of the colon.

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